

(19) 世界知的所有権機関  
国際事務局



(43) 国際公開日  
2004 年 3 月 25 日 (25.03.2004)

PCT

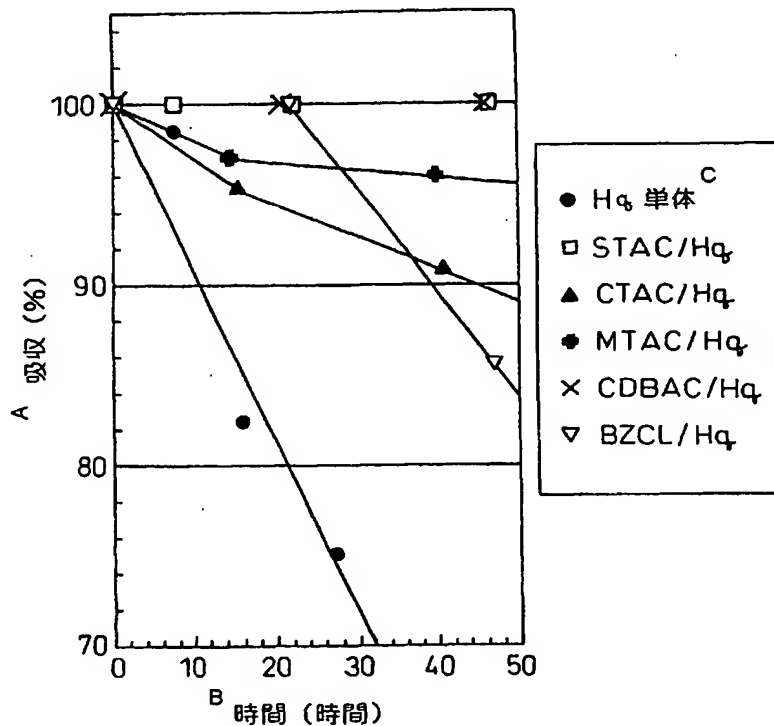
(10) 国際公開番号  
WO 2004/024116 A1

- (51) 国際特許分類<sup>7</sup>: A61K 7/48, 7/00  
(21) 国際出願番号: PCT/JP2003/011590  
(22) 国際出願日: 2003 年 9 月 10 日 (10.09.2003)  
(25) 国際出願の言語: 日本語  
(26) 国際公開の言語: 日本語  
(30) 優先権データ:  
特願2002-264636 2002 年 9 月 10 日 (10.09.2002) JP  
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(81) 指定国 (国内): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT,

[続葉有]

(54) Title: WHITENING AGENT CONTAINING CRYSTALLINE MOLECULAR COMPLEX OF HYDROQUINONE WITH SURFACTANT

(54) 発明の名称: ハイドロキノンと界面活性剤の結晶性の分子錯体を含む美白剤



A...ABSORPTION (%)  
B...TIME (H)  
C...Hq ALONE

の形成により、熱、酸素又は光に対する上記ハイドロキノン含有美白剤の保存安定性が向上され、かつ、上記ハイドロキノンが

(57) Abstract: It is intended to provide a hydroquinone-containing whitening agent showing a high storage stability and the sustained-release of hydroquinone, a process for producing the whitening agent, and a method of whitening the skin with the use of the whitening agent. The above-described whitening agent is characterized by containing a crystalline molecular complex comprising hydroquinone or its derivative with a surfactant and, owing to the formation of the molecular complex, the storage stability to heat, oxygen or light of the hydroquinone-containing whitening agent as described above being improved and hydroquinone being released in a sustained state so that the whitening effect of the whitening agent can be sustained.

(57) 要約: 保存安定性が高く、かつ、ハイドロキノン徐放性のハイドロキノン含有美白剤、上記美白剤の製造方法、及び上記美白剤による皮膚の美白方法を提供する。本発明に係る美白剤は、ハイドロキノン又はその誘導体と界面活性剤から成る結晶性の分子錯体を含む美白剤であって、上記分子錯体

[続葉有]

## INTERNATIONAL SEARCH REPORT

International application No.

JP03/11590

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl<sup>7</sup> A61K7/48, 7/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
Int.Cl<sup>7</sup> A61K7/00-7/50

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
WPI/L

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, Y A	JP 2001-302576 A (Zaidan Hojin Rikogaku Shinkokai), 31 October, 2001 (31.10.01), Claims; Par. Nos. [0001], [0003], [0018] (Family: none)	1-18 19-22
A	WO 01/91715 A2 (PENTAPHARM LTD.), 06 December, 2001 (06.12.01), Page 1, line 27 to page 2, line 5 & JP 2001-342110 A (Par. No. [0003]) & EP 1289489 A2 & US 2003/0198610 A1 & KR 2003020289 A	1-22

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* "A"	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier document but published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search  
05 December, 2003 (05.12.03)

Date of mailing of the international search report  
24 December, 2003 (24.12.03)

Name and mailing address of the ISA/  
Japanese Patent Office

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/11590

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	JP 9-77654 A (Shiseido Co., Ltd.), 25 March, 1997 (25.03.97), Claims & JP 3444571 B2	1-18 19-22
Y A	JP 63-246311 A (Shiseido Co., Ltd.), 13 October, 1988 (13.10.88), Claims & JP 95121854 B2	1-18 19-22
A	Nahoko IIMURA et al., Complex Formation between Cationic Surfactants and insoluble Drugs, Bull. Chem.Sco.Jpn., 1999, Vol.72, pages 2417 to 2422	1-22